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Street-level Bureaucrats and Irrigation Policy Reform in Southeast Asia

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Invited Essay for Praxis: A Review of Policy Practice

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Abstract:
Policy reforms are difficult for developing states, especially when they are meant to improve cooperation and collaboration between private citizens and state officials, such as in the case of education, healthcare provision, business-state relations, and policing. A large part of this challenge is that the policy reforms required for coproduction of services necessitate development of state capacity in new directions. Using the substantive issue of irrigation reforms, especially those aimed at improving service provision and farmer participation, I identify three lessons for reformers regarding the implementation of policy for the coproduction of services. Drawing on extensive fieldwork in Thailand and Indonesia, as well as the experience of the National Irrigation Administration in the Philippines, I emphasize the importance of street-level bureaucrats. The lessons drawn from irrigation policy are comparable to other practice-intensive state activities.

Keywords: Policy Reform, Bureaucracy, Street-level Bureaucrats, Irrigation, Southeast Asia

When Farmers meet Bureaucrats

While conducting field research in 2012, I frequently accompanied officials from Thailand's Royal Irrigation Department (RID) as they consulted with irrigation groups to coordinate government activities with farmer needs. During one of these visits, an irrigation official explained to me that working with farmers was not his job. As an engineer, his duties primarily consist of planning and building irrigation systems. Indeed, visits to farmer groups had delayed progress on two assigned reports that were to be submitted to the RID central office in Bangkok that week. Accordingly, he claimed that working with farmers was a "waste of time (*siawela*)."

This refrain was repeated by many irrigation officials throughout Thailand and Indonesia. Working with farmers to operate and maintain irrigation systems was not their job. Instead bureaucrats should be constructing new systems to achieve the "hydraulic mission" of expanding the amount of land under irrigation (Molle, Mollinga, & Wester, 2009). Farmers were often seen as more of an impediment to bureaucratic goals than the target service recipients of agency activities. Another official opined, "the thoughts of [officials] and farmers are very different. RID officials are engineers and they like to build, but farmers are thinking about their lives and their needs. The RID goals are very different" (personal communication, June 5, 2012).

Such attitudes highlight a major challenge facing states: the motivations of civil servants are often incongruous with the incentives that drive economic activity. Aligning incentives requires extensive changes to the way that bureaucracies operate. In other words, policy reform necessary for the coproduction of services is difficult (Ostrom, 1996). This dilemma is not confined to irrigation; any policy task that requires collaboration between state actors and service recipients poses similar challenges. Examples include education reforms, policing, business-state relations, social welfare, and so forth (Batley & McLoughlin, 2015; Pepinsky, Pierskalla, & Sacks, 2017; Pritchett & Woolcock, 2004).

In this brief essay, drawing on my own research into the irrigation reform experiences of Indonesia, the Philippines, and Thailand, I propose three lessons regarding policy reform for improved service provision. In the next section, I provide a short overview of irrigation policy reform for improved service delivery and discuss how such reforms exemplify challenges facing states. Following that, I elaborate the three policy lessons drawn from research on irrigation reforms. The final section concludes the essay with some suggestions for policy-makers.

Irrigation Policy Reforms

Irrigation reforms fit within the broad category of policy tasks referred to as second-generation reforms. Unlike the first generation of economic reforms, which were primarily focused on dismantling state involvement in the economy, second-generation reforms are those that require an expansion of state capacity, or the ability of state agencies to accomplish policy tasks (Lindauer & Pritchett 2002). This involves building institutions that are sufficiently autonomous

to implement government directives while at the same time responsive to the needs of citizens (Pepinsky et al. 2017). Such reforms make high demands in terms of "statecraft, political maneuvering, and managerial talent" (Naim 1994, 35). Civil servants must embrace new incentive structures, become more service oriented, and respond to the needs of citizens.

Irrigation reforms provide a prime example of this challenge. In much of the developing world, state-run irrigation schemes have been the rule. Built by government, often with funding from international donors, these technical irrigation systems reduced farmers to passive recipients of water rather than active co-producers (Whitaker, 1980). Engineers tasked with operating these systems often exhibit little concern for farmer involvement. Decades of experience, though, have proven that even with extensive irrigation bureaucracies, states are unable to effectively manage, monitor, and enforce irrigation plans and policies without farmer participation (Wade, 1988). Thus, to meet urgent water demands of today and in the future, experts around the world have repeatedly called for policy reform of the irrigation sector, especially in developing states (Meinzen-Dick, 1997; Ostrom, 1992).

Over the past three decades, international experts and donors have advocated a package of policy reforms for participatory irrigation management (PIM). Disappointed with poor performance despite billions and billions of dollars of investment, specialists promote PIM as a way to both recapture some of these sunk costs as well as improve performance (Vermillion, 1997). The reforms include a greater focus on Operation and Maintenance rather than construction, transfer of responsibility from irrigation officials to farmer organizations, introducing irrigation fees, and greater cooperation between farmer groups and government officials (Suhardiman & Giordano, 2014). In essence, these policies are meant to increase the role of farmers and push irrigation bureaucracies into a facilitation role.

These efforts, though, have resulted in a mixture of outcomes with many failures, which persist despite lessons learned from prominent examples of effective farmer-agency cooperation (Garces-Restrepo, Vermillion, & Munoz, 2007). The issue is not one of training and technical expertise, it is one of getting the institutions right. Only recently have irrigation experts turned to the study of politics to address this failure (Mollinga & Bolding, 2004).

The study of PIM reforms offers an excellent opportunity to better understand the challenges of policy reform due to two factors. First, PIM reforms exemplify efforts by the state to engage in the relatively difficult task of collaborating with service recipients to jointly co-produce government services (Ostrom, 1996). This is difficult to manage, as decisions about water management are both discretionary and transaction-intensive, the combination of which is particularly difficult for centralized state agencies (Pritchett & Woolcock, 2004). Other examples of discretionary and transaction-intensive activities include classroom teaching, doctor-patient interactions, social work decisions, and policing. Thus reforms for PIM serve as one type of particularly difficult reforms.

Second, irrigation agencies are often policy actors in their own right (Molle et al., 2009). The engineering background of the agencies mean that politicians are frequently unaware of agency activities. This level of specialization and expertise can elevate an irrigation department's level of discretion in policy creation and implementation (Suhardiman, 2015). As such, irrigation becomes something of a hard test case for understanding reforms. Successes in difficult cases can give us particularly useful lessons.

Lessons from PIM Reforms in Practice

In this section, I will draw on my own research and that of others to highlight three main lessons that can assist policy actors who embark on efforts to improve service provision. While these are not the only lessons available, they are the most pragmatic and can serve as a starting point for reform efforts.

Lesson 1: All reforms are local

Three decades ago, Lipsky (2010, 3) published his argument that "street-level bureaucrats," or those "public service workers who interact directly with citizens in the course of their jobs," are policy makers in that the discretion they employ during policy implementation aggregates into agency behavior. Much of the work on street-level bureaucrats focused on social workers, police, and teachers, but such an approach is also useful when considering irrigation. In essence, the process of state-managed irrigation takes place at the point where management of the water resource is passed from state hands to those of farmers. This requires interactions between government officials and farmers or farmer representatives.

Irrigation officials who interact on a regular basis with farmers, or "field-level" bureaucrats, are the most important contact point for service recipients. These officials are charged with making decisions about water distribution, infrastructure maintenance, and coordination with farmers. Even in the most extensive irrigation bureaucracies, though, they must rely on interactions with farmers to accomplish their jobs (Wade 1988). For service recipients and their economic activities, the discretion of field-level officials results in uneven policy implementation conditioned on the local political situation and power dynamics (Suhardiman, 2016).

For instance, in some areas of Thailand, farmers and RID officials exhibited an antagonistic relationship, going so far as to explain that they had viewed each other as enemies in the past (farmer leader, personal communication, May 2, 2012; RID official, personal communication, April 30, 2012). Negative interactions had destroyed trust between farmers and state officials, reducing both parties' capacity for collaborative management of water resources. On the other hand, I found a small number of sporadic successes, wherein motivated irrigation officials had cultivated relationships with farmers. Such commitments came from regional identity, family connections, or personal experiences through education. In the end, after evaluating nine different water systems, I found that successful efforts at implementing participatory irrigation

management reforms were based primarily on the attitudes of local officials who expressed a desire or fondness for working with farmers (Ricks, 2015).

In another example, in Indonesia I found that irrigation officials in different districts adopted reforms according to the local political situation. In one district, wherein farmers had greater influence in the district government, the local leaders pressured irrigation officials to become more responsive to farmer needs. In districts that did not emphasize agriculture, irrigation officials were allowed to pursue their own bureaucratic interests (Ricks, 2016a). Even so, some street-level bureaucrats engaged in promoting farmer participation despite the lack of political pressure due to individual commitments (Ricks & Arif, 2012). In essence, the level of success was dependent on the incentives of local officials. If they were pressured to be responsive to farmers, PIM reforms took greater hold than in areas without.

Thus when participatory irrigation management reforms were adopted in both Thailand and Indonesia, the success of those reforms relied heavily on the way in which they were implemented on the ground. By and large, PIM reforms have not been successful, but there is sub-national variation, with certain areas experiencing success based on the actions of committed street-level officials. In sum, if reforms for improved service provision are to succeed, the rank-and-file of the implementing agency must be somehow brought on board. Without the willing compliance of street-level officials, implementation will be largely ephemeral and haphazard.

Lesson 2: People mostly do what they get paid to do

Building upon lesson 1, if the willingness of local officials to implement reforms is key to their success, then policy-makers need to recognize what drives these local officials. In other words, we need to better understand incentives in order to structure reforms. Easterly (2002, xii), wrote, "People do what they get paid to do; what they don't get paid to do, they don't do." While this rather cynical view of human behavior is not an absolute truism, the principle of incentives driving behavior generally applies to irrigation reforms. Lam (1998) explained that irrigation officials in Nepal faced a set of incentives which limited their effectiveness. These included rules for promotion and income structures that did not encourage working with farmers and recruiting officials from engineering backgrounds that prioritized construction projects over service provision. My own research found similar incentives operated in Southeast Asia.

Irrigation officials in both Thailand and Indonesia complained that working with farmers provided them no clear benefits within the irrigation agency. One official who had worked closely with farmers due to his own personal commitment to farmers in the area explained that he received no financial benefit or recognition from the agency (personal communication, May 24, 2012):

> But there are no rewards. In fact, people who work less sometimes receive a promotion before the ones who work with farmers. If you ask, I could be lazy and sit at the office and not work with farmers. I could. Who would lose? Not me. I would get paid just as

> much. I would probably get a promotion sooner. The farmers would lose. I would have more time to do other work.

Irrigation officials face a set of incentives that prioritize technical activities, such as construction and rehabilitation of irrigation systems, rather than collaboration with farmer groups for improved service provision.

Further complicating the implementation of PIM reforms is the length of time it takes to implement them and the evaluation mechanisms by which officials are measured. For instance, building relationships with farmers takes a long period of time. In one area of Thailand, where farmers and irrigation officials had previously been antagonistic, building enough trust to engage in PIM activities took almost three years (see Ricks 2015, 205-206). Unfortunately, the RID's budgeting cycle did not account for such long-term projects, as most irrigation works can be completed within a few months to a year. Thus, the support the agency provides for farmer-agency collaboration is limited by budget cycles, meaning that officials spend a few months or a year building trust with farmers before abandoning them when the budget cycle ends. This leaves farmers feeling "as though they had been tossed aside by the irrigation agency [making the situation] worse than when the program started" (RID employee, personal communication, June 6, 2012).

In Indonesia, the mechanisms by which PIM efforts were evaluated determined how irrigation officials worked with farmers. The main evaluation tool for farmer-agency collaboration was an annual contest wherein farmer groups were judged on their effectiveness. Among the measures of success was whether or not the group had established a set of rules to govern farmer activities. Irrigation officials, thus, became involved in "teaching to the test," helping farmer groups create a formal set of rules by which they could be judged. The effectiveness of those rules or whether they were implemented was of less concern. In one interview with what irrigation officials considered to be a relatively successful group, a farmer leader chuckled as he said, "we have rules, but they are not implemented (*tidak jalan*)" (personal communication, April 27, 2011). Having improper timelines and poor measures by which to evaluate bureaucratic behavior results in bureaucratic actions that fail to accomplish the goal of the reforms.

A second challenge comes from the background of most irrigation officials. Similar to Nepal, the irrigation agencies in Southeast Asia are dominated by officials who were recruited from engineering backgrounds. Many irrigation officials were drawn to engineering at university due to the opportunity to work with computers and design projects, which included little training for public interaction. One official charged with developing a PIM program explained (personal communication, February 7, 2012),

> We're engineers. Engineers don't like talking to people. They would rather draw plans at their desks, which makes them bad at encouraging [farmer] participation. They aren't good at having conversations. They would rather build things.

Observations in Indonesia offered similar conclusions, as training meetings with farmers were devoted to explaining technical and legal aspects of irrigation rather than discussing the needs of farmers (field notes, Yogyakarta, April-May 2011). The social challenges were much more difficult for engineers to address than the technical ones.

Thus, policy actors who hope to push forward improved service provision need to seriously consider the incentive structure offered to street-level bureaucrats. If the reforms are merely placing an additional task upon officials without changing their monitoring and reward structure, as was the case in Thailand and Indonesia, there is little likelihood that they will succeed. Long-term incentives of officials, especially in regards to career advancement, need to be restructured to reflect the objectives of improving service provision. These might include incorporating farmer participation in yearly performance evaluations, expanding budgetary timelines, or additional training in communication skills. Another possibility is the adoption of a career track for non-engineers that bridges the agency focus on engineering with community organizers. Reforming the incentive structures of irrigation agencies necessitate deep changes in the promotion, hiring, and monitoring structures of the organization.

Lesson 3: Sustaining reforms requires sustained pressure

Recognizing that such reforms for improved service provision are necessary to alter the performance of street-level officials across irrigation agencies, we can now turn to the source of such reforms. Here it is useful to compare Thailand and Indonesia against two cases of irrigation reform that experienced greater success: Taiwan and the Philippines. Taiwan has long been praised for its participatory system of irrigation management (Abel, 1975; Moore, 1989; Lam, 1996, 2001), which relies on close collaboration between irrigation officials and farmer groups. The Philippines, although no longer considered a successful case of irrigation reform, experienced extensive reform of its irrigation agency during the 1970s and 1980s that emphasized farmer participation in operations and maintenance (Korten & Siy, 1988; Panella, 2004; Ricks, 2017). Here I will briefly discuss the political atmospheres that drove these reform efforts before considering those that drove reforms in Indonesia and Thailand (for more detail, see Ricks, 2016b).

When the Kuomintang fled mainland China to establish itself on Taiwan, it faced a set of severe vulnerabilities that forced the government to consolidate power and focus on upgrading state capacity in order to achieve economic growth, a condition Doner, Ritchie, and Slater (2005) refer to as systemic vulnerability. Agricultural production became a part of this push; with Taiwan's mountainous geography and reliance on seasonal rains, this necessitated the capacity to manage rotational irrigation based on close cooperation between government agents and farmers beginning in the mid-1950s (Bottral, 1977). Over the next two decades, the state's systemic vulnerability encouraged the government to pay special attention to water management, and institutional shifts were made to ensure that irrigation officials remained responsive to farmer needs and desires (Moore, 1989; Lam, 1996). Thus, sustained pressure to ensure agricultural

production as well as reduce the propensity for farmer dissatisfaction was the source of the institutional rules that ensured successful participatory management of irrigation.

The Philippines' experience with irrigation reforms came during the period of martial law under Ferdinand Marcos (1972-1986). In the early 1970s, the country faced a rice crisis which contributed to the political turmoil leading up to martial law, forcing the government to rely on imported rice. In previous years, though, Marcos had enjoyed political popularity due to his pushes for improved rice production and self-sufficiency; indeed, his government's success at improving rice production had contributed to electoral victories in the 1967 mid-term elections and the 1969 presidential election (Abueva, 1970; Doronila, 1985). Marcos saw improved rice production as an important source of legitimacy for his new dictatorship, and he adopted the Masagana 99 policy to spread new high-yielding varieties of rice, which relied heavily on irrigation. He began to focus heavily on expanding the irrigation agency; from 1974 through 1980, the National Irrigation Administration of the Philippines went through a series of sustained reforms that both grew the agency as well as tied it to farmer participation and cooperation (Bagadion, 1988). The demands on Marcos were the source of the political will necessary to push these reforms forward; in other work I refer to this as policy vulnerability (Ricks, 2017). Unfortunately, though, after Marcos was deposed Filipino politicians no longer felt this vulnerability, and they began to dismantle the institutions which had made the NIA a successful case of reform (Panella, 2004; Araral, 2005).

In contrast to Taiwan and the Philippines, both Indonesia and Thailand adopted irrigation reforms not because of internal political pressure but because of demands from international donors. In Indonesia, the first demands emerged following an oil crisis in the 1980s. Suharto's New Order government adopted the 1987 Irrigation Operations and Maintenance Policy following pressure from foreign donors, but implementation was weak, and the reforms failed (Bruns, 2004). The second period of reforms emerged after the Asian Financial Crisis in 1997. As Indonesia transitioned from the Suharto dictatorship to a democratic system, conditional loan packages again pushed for reforms of the irrigation agency. These saw some early success in PIM, but by 2002 the economy had recovered sufficiently to the point that international donors lost their leverage. Irrigation reforms were largely abandoned (Suhardiman, 2015; Ricks, 2016a).

Thailand, similarly, only adopted PIM reforms in response to a conditional loan package from the Asian Development Bank in the aftermath of the Asian Financial Crisis. Aside from this, Thailand's irrigation agency experienced a long history of avoiding a turn from its engineering focus toward improved service provision (Molle, Nittaya, & Savakon, 2002; Ricks, 2015). What reforms did emerge following the Asian Financial Crisis were superficial and easily reversed once the Thai economy had sufficiently recovered and the government cancelled the remainder of the loan in 2001 (Abonyi, 2005; Molle, 2005). Without sufficient and sustained pressure for improved service provision, the Thai irrigation agency has avoided any serious policy reform.

From these four comparisons, we can see the role of sustained political pressure in achieving policy reforms. The most successful case in achieving improved service provision through

participatory methods, Taiwan, developed its irrigation institutions in response to long-term, continuous political pressure drawn from its vulnerability. In the Philippines, Marcos experienced an extended period of vulnerability wherein he felt that improved agricultural production was necessary to legitimize his rule, which translated into support for irrigation reforms. When that pressure disappeared, so did the efficacy of the reforms. In contrast, both Indonesia and Thailand experienced only fleeting pressure, and thus their reform efforts were weak and largely ineffective.

Conclusions

The above discussion provides three major lessons for those interested in promoting policy reform for improved service provision. First, we cannot neglect the important role of street-level bureaucrats in the implementation of policy reforms. These individuals are the face of government services, and for most citizens, they are the most direct point of interaction with the state. Their actions and behavior determines the efficacy of policy reform.

Second, street-level bureaucrats respond to their agency's incentive structure. If the rules and norms for hiring, granting raise in compensation, and promotion run counter to the objectives of policy changes, it is highly unlikely that officials will embrace improved service provision. There may be exceptions based on individual preferences, but without shifting the incentive structure within the agency, one should expect that policy reforms will fail.

Third, when reforms require such institutional shifts, they will only succeed under conditions of sustained political pressure. Otherwise, government agencies may engage in superficial adoption of the policy, only to quickly abandon it as soon as the political situation shifts. As second-generation reforms are difficult and costly, they must receive continuous support in order to succeed.

Unfortunately, such sustained pressure is rare, and bureaucratic structures are slow to change. It is highly unlikely that the irrigation agencies of Thailand and Indonesia could tolerate copying Taiwan's institutions. Because the odds are stacked against such large-scale reforms, a more pragmatic option for policy reformers is to focus not on breaking down current bureaucratic systems, but instead adding incentives for street-level bureaucrats in the periphery. Small, more pragmatic actions could be more effective. For instance, providing an additional financial incentive based on the number of hours spent interacting with farmers could encourage more extensive interaction with farmer groups, which would also improve communication and collaboration between agency officials and farmers. A focus on street-level bureaucrats and their incentives is a promising direction for policy reform.

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